WASHINGTON STATISTICAL SOCIETY

WSS NEWS

OCTOBER 1991

WSS Members Selected as ASA Fellows

Three members of the Washington Statistical Society were selected as Fellows of the American Statistical Association at the Annual Joint Statistical Meetings in Atlanta, Georgia, August 20, 1991. Receiving these honors were:

- **Rich Allen**, Deputy Administrator for Programs, NASS, U.S. Department of Agriculture; for significant contributions to agricultural statistics, for leadership in the Federal statistics community, and for outstanding service to WSS, the Association, and the profession.

- **Robert J. Casady**, Senior Mathematical Statistician, U.S. Bureau of Labor Statistics; for important contributions to the quality and efficiency of major Federal surveys, for significant work in dual frame designs, network sampling and variance estimation, and for effective consulting on the design and analysis of complex sample surveys.

- **Susan Smith Ellenberg**, Chief, Biostatistics Research Branch, Division of AIDS, National Institute of Allergy and Infectious Diseases; for exemplary and creative leadership in the development of sound statistical approaches to AIDS clinical trials, for important contributions to the planning and monitoring of multi-center clinical trials, and for service to the profession.

*****

WSS Seminars

(all events are open to any interested person)

OCTOBER

1	Tues.	Variance Estimation Seminar (first in series)
3	Thur.	Quality and Energy Data
8	Tues.	Prospects for the Current Recovery
10	Thur.	HOC Genesis: A Paradox of Statistical Estimation
10	Thur.	A Dynamic Model of the U.S. Agricultural Production Sector
15	Tues.	Poverty Research and Policy: Where Do We Go from Here?
16	Wed.	Stochastic Epidemic Processes with Application to AIDS Disease
16	Wed.	CATI, CAPI, and Quality Assurance: Speculation on New Directions
21	Mon.	Forecasting the Extent of the HIV/AIDS Epidemic
22	Tues.	Proposed Center for Survey Methods and Other Related Topics
24	Thur.	Recent Advances in Telephone Survey Sampling Methodology
31	Thur.	New Computer Software for Controlled Sample Selection

NOVEMBER

7	Thur.	Variance Estimation Seminar (second in series)
13	Wed.	Survey Quality Assurance Using Modular Programming Techniques
19	Tues.	Variance Estimation Seminar (third in series)
21	Thur.	Markov Fields, Vision and Imaging

World-Class Quality Symposium

On Tuesday, October 1, 1991, from 9:00 AM to 5:00 PM, the American Society for Quality Control and Goddard Space Flight Center will jointly sponsor a one-day symposium on world-class quality at the Goddard Space Flight Center, Building 8 Auditorium, Greenbelt, MD. The symposium consists of a Quality Forum VII satellite broadcast in the morning, followed by afternoon presentations and discussions. The Quality Forum VII broadcast includes presentations on world-wide quality efforts, emphasizing Canada, Sweden, Japan and the U.S., among others. During the afternoon, concurrent sessions are offered in the areas on manufacturing, service, government, education, and special topics. Registration is $35 or $45, depending on membership in one of several sponsoring organizations. For more information, call Richard Mascis (703) 695-2833, Winifred de los Santos (703) 255-1172, or Gene Guerny (301) 286-6548.

*****

1990 Census Data User Conferences Scheduled

The Census Bureau will conduct two one-day conferences in Washington, D.C. to introduce data users to the range of data products available and forthcoming from the 1990 Census. Federal agency personnel are invited to attend the workshop scheduled for October 16. The conference on October 17 is designed for the general user public. Both are free-of-charge and are to be held in the auditorium of the Frances Perkins Building (Department of Labor, 200 Constitution Ave.). For more information and registration, contact Mac Palmer of Data User Services Division on (301) 763-1510.

*****

NIST Accelerated Testing Workshop

The National Institute of Standards and Technology (NIST) will sponsor a four day workshop on accelerated testing; statistical models, test plans, and data analyses, November 18-21, 1991 in Gaithersburg, MD. The workshop will be presented by **Wayne Nelson**, a leading authority on reliability data analyses and statistical methods in accelerated testing, in conjunction with **Jonathan Martin, Jim Lechner**, and **Harry Schafft** of NIST. Manufactured products last for years under normal operating conditions; however, management and engineering decisions require reliable information early in the life cycle. Accelerated testing quickly yields such information. This workshop will describe accelerated testing methods in a manner that will benefit those responsible for product design, development, testing, manufacturing, and procurement. Attendees will learn how to plan efficient tests and to accurately estimate and improve product reliability using test data. For complete information, contact Ms. Ruth Varner, National Institute of Standards and Technology, Admin. Bldg., Room A337, Gaithersburg, MD 20899; (301) 975-2839.

*****

Tentative Schedule of SIGSTAT Meetings

SIGSTAT is the Joint Special Interest Group in Statistics for the Capital PC User Group and WORMSC (Washington Operations Research/Management Science Council). The tentative schedule of events for the next few months is as follows:

10/09/91 Introduction to S-Plus: The popular Unix statistical programming language is now available under DOS. This meeting will demonstrate the programming features of S-Plus 1.1 (DOS).

11/06/91 Forecast Master Plus: Menu-driven, short-term forecasting package. Features include graphics, Box-Jenkins, Dynamic Regression, ARCH models, State Space Regression and Variable Parameter Regression.

12/11/91 Statistix 3.5: Menu-driven, general stat package, PC Magazine's Editor's Choice. Half price coupons available at meeting ($147.50).

All meetings are scheduled for Wednesdays from 12:30-1:30 PM in Room B-14, 1301 New York Ave, NW. The building is located midway between the Metro Center and McPherson Square Metro stops. If this is your first SIGSTAT meeting, call Charlie Hallahan, (202) 219-0507, and leave your name in order to gain entry into the building.

1992-93 ASA/NSF/NIST Senior Research Fellowship Program

The ASA/NSF/NIST Senior Research Fellowship Program, cosponsored by the National Science Foundation and the National Institute of Standards and Technology, seeks senior researchers, advanced graduate students, or recent Ph.D.s for the 1992-93 Fellowships and Associateships at the National Institute of Standards and Technology (NIST). In particular, the Program seeks Fellows with a strong interest in cross-disciplinary research in process modeling and optimization. Areas of research that fit NIST's research mission and facilities include:

- Statistical approaches in materials processing and measurement;
- On-line control in automated manufacturing;
- Design of experiments;
- Statistical computing;
- Graphical data analysis;
- Statistical image processing; and
- Design, modeling, and simulation of measurement processes.

Stipends of the Senior Research Fellows will be commensurate with qualifications and experience. Fringe benefits will be provided. Applications are due January 15, 1992 for Fellows and February 15, 1992 for Associates. For application information, contact Ms. Carolee Bush, ASA/NSF/NIST Research Program, American Statistical Association, 1429 Duke St., Alexandria, VA 22314-3402; (703) 684-1221. For information on research topics and other aspects of the program, contact Ms. Ruth Varner, National Institute of Standards and Technology, Admin. Bldg., Room A337, Gaithersburg, MD 20899; (301) 975-2839. Women and minorities are encouraged to apply.

*****

Workshop in Memory of David Byar

The National Cancer Institute announces a day and a half scientific workshop in memory of **David Byar**. The program, entitled "David Byar: An Accidental Career," will be held November 7-8, 1991, at NIH in Bethesda. It will begin with recollections of Byar's life, followed by presentations on those areas of statistics in which he made the greatest contributions:

- Survival Analysis with Covariates
- Observational Databases and Randomized Trials
- The VACURG Prostate Studies--qualitative interactions and analyses of cause of death
- Orthogonal & Non-orthogonal Designs
- Analysis of Epidemiologic Data
- Cancer Prevention Trials
- AIDS Research.

The Workshop will be held at Wilson Hall, Building 1, NIH Campus, 9000 Rockville Pike, Bethesda, MD, from 8:45 AM to 5:30 PM Thursday, November 7 and from 8:30 AM to 1:00 PM on Friday, November 8. Admission is free, but seating is limited. For registration, contact Jennifer Gaegler @ (301) 496-8556.

*****

OBITUARIES

A. Ross Eckler, 1901-1991

A. Ross Eckler, formerly Director of the U.S. Census Bureau, died on March 14, 1991 at Montgomery General Hospital of congestive heart failure. Although he was disabled in recent years by a massive stroke, Ross and his family and friends had been looking forward to celebrating his ninetieth birthday in May of this year.

Born in Van Hornesville, NY, he was the only child of parents who lived on a farm in an area to which he often returned in later years for vacations and holidays. He graduated from Hamilton College in Clinton, NY, as a member of Phi Beta Kappa and was the salutatorian at his commencement, an auspicious start to a career that would eventually call for much public speaking. As well as being an outstanding scholar, he played center on the Hamilton football team and also excelled in track, shotput, and discus throwing. He had the friendly college nicknames of "Eck" and "Chubby." Not long after graduation from Hamilton, Ross married Jennie Howe. Their marriage was to last 63 years until Jennie's death in 1987.

OBITUARIES (cont.)

Eckler (cont.)
During the 1920s, Ross taught mathematics at Tome Institute in Port Deposit and then held several jobs at Harvard University while studying for his doctorate. There, he was an assistant librarian and an instructor of public utility economics before going on to Washington in 1935, after having been awarded a Ph.D from Harvard in 1934. He was employed by the Works Progress Administration as Chief of Special Inquiries and as Director of Research. By that time, the Ecklers had a son, A. Ross, Jr., and a daughter, Mary Lois. They settled in the Cleveland Park area of Washington and eventually joined the Cleveland Park Congregational Church, as it was then known.

In 1939 Ross joined the Census Bureau, which was the first assignment in his progression toward the directorship. As Chief of Economic Statistics in the Population Division, he later became Assistant Chief of that division. He was then appointed Chief of the Special Surveys Division, Chief Social Scientist, and then Assistant Director of the Bureau. He was Deputy Director from 1949 to 1965 and then Director until 1969, when he retired.

Ross Eckler's Census career was marked by many honors, such as the Commerce Department's Gold Medal awarded in 1961 for "Inspiring Leadership" in developing new census data collection techniques. In 1962 he received the Career Service Award from the National Service League for his work in simplifying census data presentation.

He was a Fellow, Vice-President, and President of the American Statistical Association. His professional travels included attending the conferences of the International Statistical Institute in New Delhi, Tokyo, Paris, Belgrade and Ottawa. He also took a trip around the world. His personal files reflected his dedicated interest in his professional society publications, such as the journals of the American Statistical Association, the Royal Statistical Society, and the International Statistical Institute, among many others.

Although his professional life had the usual pressures of high office, he found time and opportunity for recreation and conviviality, as well as enjoyment in his growing family. Ross was a golfer, played bridge, and had a pool table in his home. Dancing lessons, and dancing as a social activity, also attracted him. More formally, he was an active member of the Cosmos Club, The Cleveland Park Social Club and the Kiwanis Club at Leisure World, where he lived the last 16 years of his life.

It was widely reported that Will Rogers said that he had never met a man he didn't like. As for Ross Eckler, it can be said that he never met anyone--man, woman, or child-- whom he didn't like or who didn't like him. Highly efficient in his work life, he was also gentle, kind, witty, and appreciative of others' humor. Even-tempered, fair, and considerate, he was loved by the two aides who took care of him on a daily basis during the last years of his life. His son A. Ross Eckler, Jr., and his wife, Faith, of Morristown, NJ, their three children and four grandchildren, and his daughter Mary Lois Dennison and her husband, David Dennison, of Hanover NH, and their two children were a devoted family, ever available for their special *Pater Familias*. Memories of Ross are a wonderful treasure for his family and for the hundreds of his friends and colleagues.

By Marie D Wann, a Fellow of the ASA, 3457 S. Leisure World Blvd., Silver Spring, MD 20906. Reprinted from The American Statistician, August 1991.

*****

Albert Mindlin, 1918-1991
ASA Fellow Albert Mindlin, 73, a retired chief statistician in the executive office of the Washington, D.C. mayor, died July 22 at George Washington University Hospital. He lived in Chevy Chase, MD.

Mr. Mindlin was born in Chicago and grew up in Kansas. He was a graduate of the University of California at Los Angeles and received a master's degree in mathematics from the University of California at Berkeley. He served in the Merchant Marine during World War II. *(cont. on page 11.)*

PROGRAM ABSTRACTS

TOPIC: **Variance Estimation Seminar** (first of four)

SPEAKER: Louise Woodburn, Internal Revenue Service

DATE/TIME: Tuesday, October 1, 1991, 12:30-2:00 PM

LOCATION: Room 2437, GAO Building, 441 G Street, NW, Washington, DC. (Red Line--Judiciary Square).

SPONSOR: Methodology Section

ABSTRACT: The estimation of sampling variances from complex samples is typically not included in general sampling courses. Nonetheless, up-to-date techniques are needed for the complex survey settings many of us work in. In order to share experiences on variance estimation, the Washington Statistical Society has organized a fall seminar series on variance estimation. Among the topics that will potentially be covered are Random Group, Balanced Repeated Replication (BRR), Fay's Modification to BRR, Jackknife, Bootstrap, Generalized Variance Functions and the Taylor Series Method.

There will be four sessions, each focusing on one or more applications of variance estimation techniques. Each session will also have a discussant and time for audience discussion.

TOPIC: **Quality and Energy Data**

SPEAKER: Calvin A Kent, Energy Information Admin., U.S. Department of Energy

CHAIR: John H. Herbert, U.S. Department of Energy

DISCUSSANT: Fritz Scheuren, Internal Revenue Service

DATE/TIME: Thursday, October 3, 1991, 12:00-2:00 PM

LOCATION: Room GJ-015, Forrestal Bldg., 1000 Independence Ave., SW, Washington, DC. Non-government employees will need an escort into the building. Call John H. Herbert at (202) 586-4360, before the meeting date and an escort will be arranged (Blue or Orange Line--L'Enfant Plaza).

SPONSOR: Agricultural and Natural Resources Section

ABSTRACT: Providing high quality energy is critical, as this information is used in conducting analyses and making decisions that determine America's energy future. This presentation discusses four elements of data quality as they relate to data collected by the Energy Information Administration (EIA). The elements are: timeliness, consistency, continuity, and usefulness/customer satisfaction. First, the presentation describes the background and structure of EIA data collections and their relationship to the distribution cycle. Next, we provide a detailed discussion of the four elements with illustrations from EIA data series and analyses. The presentation ends by discussing what EIA is doing to meet energy needs and improve each of the components of data quality.

PROGRAM ABSTRACTS (cont.)

TOPIC: **Prospects for the Current Recovery**

SPEAKER: Ralph Monaco, Economic Research Service, USDA
Larry Kimbell, U.S. Macroeconomic Forecasting Group, WEFA

CHAIR: Michael Horrigan, Bureau of Labor Statistics

DATE/TIME: Tuesday, October 8, 1991, 12:00-2:00 PM

LOCATION: Room 2736, GAO Bldg., 441 G Street, NW, Washington, DC 20212 (Red Line--Judiciary Square).

SPONSOR: Social and Demographic Section

ABSTRACT: Although there is a growing consensus that the economy has entered a recovery, experts differ as to the prospects for the current expansion. Is the economy headed for a double-dip recession? Or are we about to enter another period of sustained growth? Is the government pursuing the most appropriate monetary and fiscal policies? In addition to these topics, the panel for this session will also examine the strength of the current recovery relative to previous recoveries, as well as consider the major risks that may affect the strength and length of the current recovery. Ralph Monaco, currently at the Economic Research Service, was a Senior Staff Economist during 1990-91 for Macroeconomics and Forecasting at the Council of Economic Advisors. Larry Kimball is a Senior Group Vice-President for the U.S. Macroeconomic Forecasting Group at WEFA.

TOPIC: **Higher-Crossing (HOC) Genesis: A Paradox of Statistical Estimation**

SPEAKER: Ben Kedem, Department of Mathematics and Systems Research Center, University of Maryland, College Park.

DATE/TIME: Thursday, October 10, 1991, 11:00 AM-12:00 Noon

LOCATION: Staughton Hall, Room 301, George Washington University, 707 22nd Street, NW, Washington, DC (Blue or Orange Line--Foggy Bottom).

SPONSOR: Physical Science and Engineering Section

ABSTRACT: Consider a first-order stationary autoregressive Gaussian process Z(t), with mean 0. It is a Markov process. Now perform clipping. That is, define $X(t) = 1$ if $Z(t) > 0$, and $X(t) = 0$, otherwise. Contrary to intuition, X(t) is NOT Markov. This is a mathematical fact. However, since, as everybody knows, mathematics is "not everything," it is still interesting to see what happens if we ignore facts and take X(t) as Markov. If you do that, you stumble upon HOC. This opens the way to some fascinating facts regarding time-series analysis.

PROGRAM ABSTRACTS (cont.)

TOPIC: **A Dynamic Model of the U.S. Agricultural Production Sector**

SPEAKER: Utpal Vasavada, Texas A & M University

CHAIR: Linda Atkinson, Economic Research Service, USDA

DISCUSSANT: Eldon Ball, Economic Research Service, USDA

DATE/TIME: Thursday, October 10, 1991, 12:30-2:00 PM

LOCATION: 1301 New York Ave., NW, Washington DC (13th & New York Ave.) Waugh Auditorium, in basement (Blue or Orange Line--between Metro Center and McPherson Square). Call Linda Atkinson (202) 219-0505 to place your name on the guard's list for entry.

SPONSOR: Economics Section

ABSTRACT: The adjustment cost hypothesis is invoked to specify an aggregate dynamic model of the U.S. production sector. This model is useful for analyzing the response of inputs and outputs to price changes. Furthermore, restrictions implied by economic theory can be tested or imposed within this modeling framework. Aggregate time-series data for U.S. agriculture were used to estimate model parameters and to perform hypothesis tests.

TOPIC: **Poverty Research and Policy: Where Do We Go from Here?**

SPEAKER: Wendell Primus, House Ways and Means Committee
Patricia Ruggles, The Urban Institute
Dan Weinberg, Bureau of the Census

CHAIR: Michael Horrigan, Bureau of Labor Statistics

DATE/TIME: Tuesday, October 15, 1991, 12:00-2:00 PM

LOCATION: Room 2736, GAO Bldg., 441 G Street, NW, Washington, DC 20212 (Red Line--Judiciary Square)

SPONSOR: Social and Demographic Section

ABSTRACT: The title of this panel session refers to two important but distinct aspects of the issue of poverty. On one hand, there are some very fundamental statistical issues that must be examined in order to obtain improved measures of both income and poverty. It is very important to note, however, the long-standing concern of the statistical community that the question of the most appropriate direction for research be treated separately from determining the most appropriate direction for policy. On the other hand, progress in addressing the statistical problems involved in measuring income and poverty can have important impacts on the decisions of policymakers. The individuals on this panel have made important contributions to various aspects of the issues of poverty research and policy. As author of Drawing the Line: Alternative Poverty Measures and their Implications for Public Policy, Pat Ruggles has thought extensively about both measurement and policy issues. In his role as chief economist to the House Ways and Means Committee, Wendell Primus has valuable insights into the policy dimensions of poverty. And, through his work at the Census Bureau, Dan Weinberg has a unique perspective on the data needs for obtaining improved measures of income and poverty.

PROGRAM ABSTRACTS (cont.)

TOPIC: **Stochastic Epidemic Processes with Application to AIDS Disease**

SPEAKER: Grace L. Yang, University of Maryland, College Park

CHAIR: Barry Graubard, National Cancer Institute

DATE/TIME: Wednesday, October 16, 1991, 11:00 AM - 12:00 Noon

LOCATION: National Institutes of Health, Executive Plaza North, Conference Room G, 6130 Executive Blvd., Rockville, MD (Red Line--White Flint; Shuttle service to Executive Plaza North)

SPONSOR: Joint Colloquium of the National Cancer Institute, Division of Cancer Prevention and Control, and Public Health and Biostatistics Section, WSS

ABSTRACT: At the population level, the propagation of an infectious disease in a defined target population (or populations) can be described in terms of the number of susceptibles X(t), the number of infectives Y(t), and the number of immune individuals Z(t) in the population at any time t. In the application to AIDS, Y(t) can be considered as the number of individuals that are HIV positive; Z(t) can be the number of diagnosed AIDS cases at time t. The evolution of the epidemic in time depends on the modes of transmission of the disease at the individual level and the characteristics of the disease, such as the incubation period. In this presentation we discuss:

- A class of SIR models that is concerned with modeling the chance mechanism of how a susceptible (S) becomes an infective (I) and, is, later, removed (R) from circulation in the community. From these models we compute epidemic curves which describe the time course of the expected number of infectives and removals, the concept of time to peak epidemic and other salient features of the epidemic.

- The estimation of the rate of infection (from S to I) and the rate of developing AIDS (from I to R). The estimation problem is complicated by the very complex epidemic processes, as well as the lack of good data. Some recent developments will be presented.

- Deterministic versus stochastic approach to the analysis of the epidemic.

- Numerical and simulation results.

TOPIC: **CATI, CAPI, and Quality Assurance: Speculation on New Directions**

SPEAKER: Karl K. Kindel, Bureau of the Census

CHAIR: Carrol Kindel, NCES

DATE/TIME: Wednesday, October 16, 1991, 12:30-2:00 PM

LOCATION: 555 New Jersey Ave., NW, Washington DC. Room 326 (2 blocks from Union Station). Take Red Line to Union Station; walk 1 block west to F St., NW; walk down F Street to corner of F St. and New Jersey Ave. Enter building at left and take elevator to third floor.

SPONSOR: Quality Assurance Section

ABSTRACT: Is quality assurance still an integral part of the data collection process, or have computer-assisted survey information technologies made quality assurance obsolete? An approach to quality in automated data collection environments will be described.

PROGRAM ABSTRACTS (cont.)

TOPIC: **Forecasting the Extent of the HIV/AIDS Epidemic**

SPEAKER: Carl M. Harris & Edward Rattner, George Mason University

CHAIR: Joe Fred Gonzalez, Jr., NCHS

DATE/TIME: Monday, October 21, 1991, 10:00-11:30 AM

LOCATION: Presidential Bldg, 11th flr. Auditorium, National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, MD

SPONSOR: Office of Research and Methodology, NCHS and the Public Health and Biostatistics Section, WSS

ABSTRACT: This presentation has a dual objective: (1) to describe the current status of the structure of a data-estimation system that generates a wide span of U.S. HIV/AIDS estimates; and (2) to demonstrate the application of that system by the development of a dataset of HIV/AIDS prevalence and incidence, by stage, in the U.S. for a range of past and future years. There are many uncertainties regarding the anticipated effects of HIV/AIDS; examination of many of these effects indicates multiple societal difficulties, both as a consequence of and as a generator of the pandemic. The characteristic of AIDS-growth is that of a long-delayed but inexorable disabling morbidity, taking off in 1991-1992 from an HIV population generally conceded to be about 1.5 million, dispersed through every state. Although widely dispersed, its impact, even at this early stage of growth, is to endanger the health and social support systems of our urban centers. The spread of AIDS cases into the smaller cities and rural counties indicates that those problems over time will also impact our lesser populated areas. The model has been developed at George Mason University and funded by the GMU foundation. It provides new estimates of the levels of incidence and prevalence of HIV/AIDS for future years, based on U.S. AIDS cases reported. These numbers are consistent with some recent broad band projections released in early Summer 1989 by the U.S. GAO; but our model has generated data within a more prescribed range. The system is based on a modular concept which includes a Markov chain model of disease progression and a linear programming approach to back calculation. The forecasts include corrections for reporting delays and are adjusted for an assumed CDC data capture of 80%.

TOPIC: **The Administration's Proposed Center for Survey Methods and Other Topics of Concern to the Statistical Community**

SPEAKER: Hermann Habermann, Office of Management and Budget

CHAIR: Michael Horrigan, Bureau of Labor Statistics

DATE/TIME: Tuesday, October 22, 1991, 12:00-2:00 PM

LOCATION: Room 2736, GAO Bldg., 441 G Street, NW, Washington, DC 20212 (Red Line--Judiciary Square).

SPONSOR: Social and Demographic Section

ABSTRACT: The President's FY 1992 budget proposal contains a funding request for the establishment of a Center for Survey Methods to improve the skills of the existing Federal statistical workforce and attract qualified entrants. This proposal responds to the perception that, for some time now, it has been very difficult for the Federal statistical system to attract and retain sufficient numbers of high-quality statisticians. Under this program, a mixture of current and prospective Federal statisticians would be able to enter a graduate degree program in survey statistics each year. Recently, the Committee on National Statistics organized a conference for the purpose of bringing together potential sponsoring institutions and discussing the conceptual nature of the Center. Hermann Habermann, Chief of the Statistical Policy Office, OMB, will discuss the results of this conference. He is also planning to address other issues of concern to the statistical community, including draft legislation that is being prepared to allow for limited data sharing between statistical agencies and the proposed new standards of Federal statistical practice.

PROGRAM ABSTRACTS (cont.)

TOPIC: **Recent Advances in Telephone Survey Sampling Methodology**

SPEAKERS: Robert Casady, Bureau of Labor Statistics
Joseph Waksberg, Westat, Inc.

CHAIR: Clyde Tucker, Bureau of Census

DATE/TIME: Thursday, October 24, 1991; 12:30-2:00 PM

LOCATION: Room N3437, Frances Perkins Building, 200 Constitution Ave., N.W., Washington, DC. Call Shandon Brown at (202) 272-2282 to put your name on the guard's entry list for entry by COB, Oct., 23, 1991 (Red Line--Judiciary Square).

SPONSOR: Section on Data Collection Methods, WSS and DC AAPOR

ABSTRACTS:

Stratified Telephone Sample Designs

Robert J. Casady & James M. Lepkowski

Two stage random digit dialing (RDD) telephone sample designs, such as that described by Waksberg, are highly effective at identifying banks of numbers that have high concentrations of residential telephone numbers. Thus, they are able to increase dialing efficiency in telephone surveys by reducing the number of non-working numbers that are dialed. Unfortunately, two stage RDD designs have undesirable features, such as a replacement of non-working numbers late in an interviewing period. Stratified telephone sample designs are proposed which provide samples of phone numbers that have higher concentrations of residential telephone numbers and less replacement. These designs use commercial lists of telephone numbers to identify banks of numbers that have high concentrations of working residential numbers. Allocation of sample size to strata, composed of listed numbers, unlisted numbers in banks with listed numbers, and numbers in banks without listed numbers are explored. Analysis of a commercial frame of listed numbers is used to specify design parameters in the allocation formulation.

Avoiding Sequential Sampling with Random Digit Dialing

J. Michael Brick & Joseph Waksberg

The Mitofsky-Waksberg procedure is an efficient method for selecting a self-weighting, random digit dialing (RDD) sample of households. The Mitofsky-Waksberg procedure is sequential, requiring a constant number of households be selected from each cluster. In this article, a modified Mitofsky-Waksberg procedure which is not self-weighting or sequential is described. The bias and variance for estimates derived from the modified procedure are investigated. Suggestions on circumstances which might favor the modified procedure over the standard Mitofsky-Waksberg procedure are provided.

TOPIC: **New Computer Software for Controlled Sample Selection**

SPEAKER: Gary R. Zion, National Institute of Dental Research

CHAIR: Sylvia G. Leaver, U.S. Bureau of Labor Statistics

DATE/TIME: Thursday, October 31, 1991, 12:30-2:00 PM

LOCATION: Room 2437, GAO Bldg., 441 G St. NW Washington, DC (Red Line--Judiciary Square). Sign in at guard desk.
SPONSOR: Statistical Computing Section

ABSTRACT: The topic of this presentation will be controlled sample selection, which will be used by the Bureau of Labor Statistics for PSU selection for the 1997 revision of the Consumer Price Index. Controlled selection is a method for incorporating nonstatistical considerations into sample selection, while maintaining the correct probability of selections at the PSU level. The focus of the discussion will be a C language program written at BLS, which has been successful at solving large controlled selection problems.

OBITUARIES (cont.)

Midlin (cont.)

He moved to Washington and began his government career in 1949 as a Census Bureau statistician. He transferred to the D.C. government in 1953, helping to establish it statistical division. He became chief research statistician of the District Management Office in 1959. He retired in 1990.

During his years with the city government, he helped establish the District's real property data bank, which helps chart land-use patterns, and a demographic unit that measured census-type data between federal counts. Mr. Mindlin was a past president of the Washington Statistical Society. He was national chairman of ASA's Committee on Small Area Statistics. He received a Meritorious Public Service Award from the District of Columbia in 1988. Survivors include his wife, Marcia, of Chevy Chase; two children, five step-children and five grandchildren.

(Excerpted from The Washington Post, July 25, 1991)

*****

Mary Geist, IRS Statistician, Dies

Mary Geist, a mathematical statistician in the Statistics of Income Division (SOI) of the Internal Revenue Service, died at home of leukemia on August 25, 1991. Before coming to SOI, Mary worked at the National Center for Education Statistics, her first employment after receiving her Ph.D. in statistics at Syracuse University. She is survived by her husband, Gary, and two daughters, Elizabeth, 3, and Lucy, 1.

*****

David P. Byar, M.D., 1938-1991

Born in Lockland, OH, Dr. Byar graduated from high school as valedictorian in Maryville, TN. He received his A.B. degree in 1960 from Emory University in Atlanta, and received his M.D. degree from Harvard Medical School in 1964.

After serving one year as a surgical intern in Denver, CO, he went to work for three years at the Armed Forces Institute of Pathology where he studied the pathology of genito-urinary tumors and performed laboratory experiments on the uptake of radioactive zinc by organ cultures of rat prostate tissues. During that time, Dr. Byar started studying statistics, and in 1968 he was asked by his teacher, Dr. John Bailar, then at the National Cancer Institute, to join his staff and take on the responsibility of principal statistician for several clinical trials for treatment of prostate and bladder cancer.

In 1972, The Clinical and Diagnostic Trials Section was formed with Dr. Byar as its Head. The Section divided its efforts between methodological work in biostatistics; applied work in designing, conducting, and analyzing clinical trials and other cancer studies; and consultation on biostatistical problems.

In 1981, Dr. Byar was elected a Fellow of the American Statistical Association, cited "for rare capacity, reflecting an unusual combination of medical and statistical expertise, to bring scientific rigor to clinical testing; for work in statistical theory; and for effectiveness as a communicator between statisticians and medical researchers." In 1984, Dr. Byar was elected to the International Statistical Institute; in 1991, he was named an Honorary Fellow of the Royal Statistical Society "in recognition of services to statistics."

At the time of his death, August 8, 1991, he was Chief of the Biometry Branch in the Division of Cancer Prevention and Control, NCI, and was primarily interested in design of cancer prevention and screening studies and assessment of epidemiologic evidence.

*****

EMPLOYMENT COLUMN

As a service to local statisticians, the Washington Statistical Society News provides notification of employment opportunities and descriptions of those seeking employment here in the Washington, DC area. Readers are encouraged to take advantage of this feature of the newsletter. Deadline for inserting notices is 5 (five) weeks before the publication date. Those interested should write to: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, D.C. 20250-2000. Contact Mr. Arends at (202) 447-6812.

SENIOR SAMPLING AND ESTIMATION STATISTICIAN

The National Agricultural Statistics Service (NASS) of the U.S. Department of Agriculture (USDA) is seeking a senior sampling and estimation statistician. It is desirable that candidates have at least a master's degree in mathematical statistics with a graduate level sampling course and extensive national survey design experience. Knowledge of area sampling frames, list sampling frames and multiple frame sampling theory and procedures is essential. Applications with Ph.D.s in statistics with extensive economic business or agricultural national survey design and estimation experience are desirable.

U.S. citizenship required. Equal opportunity employer. Position to be located in Fairfax, VA. For more information contact and send resume to: George A. Hanuschak, USDA/NASS Chief, Survey Research Branch, 14th and Independence Ave., SW, Room 4168, South Building, Washington, DC 20250-2000, Phone: (202) 447-6201.

*****

WASHINGTON STATISTICAL SOCIETY

P.O. Box 752
Suitland. MD 20752